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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,473	09/26/2005	Charles Kannankeril	D-30298-01-US	3671
7590 Scaled Air Corporation P O Box 464 Duncan, SC 29334			EXAMINER SCHATZ, CHRISTOPHER T	
			ART UNIT 1791	PAPER NUMBER
			MAIL DATE 05/24/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,473

Applicant(s)

KANNANKERIL ET AL.

Examiner

CHRISTOPHER SCHATZ

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-21 is/are pending in the application.
- 4a) Of the above claim(s) 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GS-08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Paper No(s)/Mail Date _____
- 6) ☐ Other: _____

FINAL REJECTION

Election/Restrictions

1. Claim 21 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 02/16/2010.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-8, 10-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troy (US 3660169) in view of the collective teaches of Chavannes (3142599) and Caputo (4576669).

Troy discloses a process for making an inflatable laminated article, comprising the steps of: (A) contacting a first 10 flat film with a second 11 flat film; (B) heating selected portions of at least one the first and second flat films to a temperature above a fusion temperature of the first and second flat films, so that the first and second flat films are heat sealed to one another to produce a laminated article having heat seal pattern which provides a plurality of inflatable chambers between the first flat film and the second flat film (column 9, lines 34-62, figure 18), including passing the first and second flat films together through heated roller (142 or 143) having a raised surface; and (C)

rolling up or transporting the first and second flat films after they are heat sealed to one another, for subsequent inflation and sealing; and wherein the heating is carried out by contacting the first flat film with a heated raised surface roller 128. The applicant should note that first and second film read on the term "flat" because they are flat before being contacted. The claim does not require that the films are flat after being contacted to each other.

It is not clear if Troy discloses a method including passing the first and second flat films together in a partial wrap around a heated roller.

Both Chavannes and Caputo are directed to a method of making inflated laminated articles. Both references disclose a method wherein at least one film is passed in a partial wrap around a roller with a raised surface portion (figures 1-4 of Chavannes and figure 1 of Caputo). The teaching by the plurality of references shows that such a method is well known in the art. Additionally wrapping the films at least partially around a roller provides proper tension to the film and increases the control over the process. At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the method of Troy such that the flat films are passed together in a partial wrap around the heated roller 142 or 143 having a raised surface as is well known in the art and advantageous as taught by Chavannes and Caputo above.

As to the claimed the speed, Chavannes discloses such a claimed speed is advantageous (column 3, lines 29-35). At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the method of Troy such that

the flat films are conveyed at least 120 ft/min as taught by Chavennes above as such is an advantageous and efficient method.

Caputo discloses a raised surface roller is coated with a polytetrafluoroethylene (PTFE) release layer in order to prevent the film from sticking to the roll (figure 1, column 3, line 36 – column 4, line 3; column 4, lines 31 – 52; column 6, lines 32 – 45). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to coat the raised surface roller 28 of Troy with a PTFE release coating as taught by Caputo.

As to claim 2, it is recognized in the art that it is undesirable for the film to stick to the raised surface roller as disclosed by Caputo above. As such, one of ordinary skill in the art would have readily recognized the need to optimize the surface roughness of the roller in order to achieve optimal release characteristics and thus one of ordinary skill would have achieved a surface roughness within applicant's claimed range through routine experimentation. Absent any unexpected results presented by the applicant, the claimed surface roughness range does not patentably distinguish applicant's claimed method over the prior art.

As to claim 3, Troy discloses a method wherein the first and second films are heat sealed to one another under a combination of heat and pressure (above cited text). As to claim 4, Troy discloses a method wherein the pressure is produced by means for forming a nip area (figure 18). As to claim 5, one of ordinary skill in the art would have recognized to contact the first film with the raised surface roller and heat to the fusion temperature before said film is passed through the nip area. As to claim 6, Troy

discloses a method wherein the means for forming a nip area is a contact roller 123 in a nip relationship with the raised surface roller (figure 18). As to claim 7, Troy discloses that rollers 122 and 124 have an elastic rubber covering, it would have thus been within the purview of one of ordinary skill in the art to select such a covering for contact roller 123.

Caputo meets the limitations of claims 8 and 10 as discussed above. As to claim 11, Caputo discloses that the radius of curvature is a matter of preference, and thus the examiner asserts that one of ordinary skill in the art would have readily achieved a radius of curvature within applicant's claimed range through routine experimentation. As to claims 12 and 13, both Chavannes (column 5, lines 44-46) and Caputo (figures 1-4; column 4, lines 40-42) disclose a method further comprising cooling the first and second films after heating the selected portions of the films, the cooling being carried out by a means for cooling wherein said means comprises a roller. As to claim 14, the required hardness of the cooling roller is dependent upon several manufacturing conditions, and the examiner asserts that one of ordinary skill in the art would have readily achieved applicant's claimed Shore A hardness range through routine experimentation. Absent any unexpected results presented by the applicant, the claimed Shore hardness range does not patentably distinguish applicants claimed method from the prior art. As to claims 15 and 16, Caputo discloses a PTFE release coating on the cooling roller (column 5, lines 32-45). As to claims 17 and 19, Troy discloses that the first and second films can be extruded or preformed with rollstock (column 12, lines 32-36).

4. Claims 1-8 and 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schornstheimer (3070481) in view of Chavannes (3142599) and Caputo (4576669).

Schornstheimer a process for making an inflatable laminated article, comprising the steps of: (A) contacting a first flat film 15' with a second flat film 13'; (B) heating selected portions of at least one the first and second flat films to a temperature above a fusion temperature of the first and second flat films, so that the first and second flat films are heat sealed to one another to produce a laminated article having heat seal pattern which provides a plurality of inflatable chambers between the first flat film and the second flat film, including passing the first and second flat films together in a partial wrap around a heated roller 33 having a raised surface 20; and (C) rolling up or transporting the first and second flat films after they are heat sealed to one another, for subsequent inflation and sealing (figures 2 and; column 4, line 43 - column 5, line 7). It is not clear if Schornstheimer discloses a release coating and the applicant's claimed speed.

As to the claimed the speed, Chavannes discloses a method and a speed as discussed above. At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the method of Schornstheimer such that the flat films are conveyed at least 120 ft/min as taught by Chavannes above as such is an advantageous and efficient method as discussed above.

Caputo discloses a method and PTFE coated roller as discussed above. Therefore, at the time the invention was made, it would have been obvious to one of

ordinary skill in the art to coat the raised surface roller 20 of Schornstheimer with a PTFE release coating as taught by Caputo in order to achieve the advantages discussed above. As to claim 2, it is recognized in the art that it is undesirable for the film to stick to the raised surface roller as disclosed by Caputo above. As such, one of ordinary skill in the art would have readily recognized the need to optimize the surface roughness of the roller in order to achieve optimal release characteristics and thus one of ordinary skill in the art would have achieved a surface roughness within applicant's claimed range through routine experimentation. Absent any unexpected results presented by the applicant, the claimed surface roughness range does not patentably distinguish applicant's claimed method over the prior art.

As to claims 3 and 4, the flat films are heat sealed under heat and pressure at the roller nip. As to claim 5, Schornstheimer discloses that the first film 15' is heated on the raised surface before passing through the nip area (figure 7). As to claims 6 and 7, Schornstheimer discloses a contact roller with rubber coating (column 23, lines 22-23). Claims 8 and 10 are addressed above. As to claim 11, the radius of curvature is a matter of preference, and thus the examiner asserts that one of ordinary skill in the art would have readily achieved a radius of curvature within applicant's claimed range through routine experimentation. As to claims 12 and 13, Schornstheimer discloses cooling rollers 22'-24' (above cited text).

As to claim 14, the required hardness of the cooling roller is dependent upon several manufacturing conditions, and the examiner asserts that one of ordinary skill in the art would have readily achieved applicant's claimed Shore A hardness range

through routine experimentation. Absent any unexpected results presented by the applicant, the claimed Shore hardness range does not patentably distinguish applicants claimed method from the prior art. As to claims 15-16, it would have been obvious to use a PTFE release coating on the cooling rollers of Schornstheimer as taught by Caputo above for the same reasons it would have been obvious to use said release layer on the heating roller as discussed above. As to claim 17, at least one of the first and second films are selected from a rollstock. As to claim 18, the above cited text of Schornstheimer discloses that at least one film provided from the rollstock is brought to a softening temperature. It would have been obvious to one of ordinary skill in the art to keep the temperature below the glass transition temperature in order to maintain the structural integrity of the film before heat sealing. As to claims 19 and 20, the embodiment of figure 7 of Schornstheimer discloses such.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER SCHATZ whose telephone number is (571)272-6038. The examiner can normally be reached on Monday through Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHRISTOPHER SCHATZ/
Examiner, Art Unit 1791

/Richard Crispino/
Supervisory Patent Examiner, Art Unit 1791